IDAHO DEPARTMENT
OF HEALTH AND WELFARE

DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Boise, ID 83706-1255, (208) 334-0502

Philip E. Batt, Governor

April 12, 1996

CERTIFIED MAIL #P 875 705 014

Lynn Moore
Soda Springs Phosphate, Incorporated
P.O. Box 578
Soda Springs, Idaho 83276

RE: Soda Springs Phosphate, Incorporated (Soda Springs) - #9506-073-2
Tier II Operating Permit (#029-00008)

Dear Mr. Moore:

On June 8, 1995, the Division of Environmental Quality (DEQ) received a Tier II Operating Permit application from Soda Springs Phosphate, Incorporated. On June 29, 1995, the application was determined incomplete. Additional information was received on August 17, 1995. On November 9, 1995, DEQ staff met with the facility owner, J. Hatfield, and the facility Consultant, J. Reeve, of Reeve and Associates, where issues related to the Tier II permit application and the facility's potential to emit were resolved. On November 15, 1995, the application was declared complete. More information was received on November 15, 1995, and on January 5, 1996. On January 16, 1996, a proposed Tier II OP was issued for public comment.

Based on review of your application, state and federal rules and regulations, and comments received, DEQ finds this project meets the provisions of IDAPA 16.01.01.400. (Rules for the Control of Air Pollution in Idaho). Therefore, please find enclosed your Tier II OP (#029-00008) for the emission sources that exist at the facility.

You, as well as any other entity, may have the right to appeal this final agency action pursuant to the Idaho Department of Health and Welfare Rules, Title 5, Chapter 3, "Rules Governing Contested Case Proceedings and Declaratory Rulings," by filing a petition with the Hearings Coordinator, Department of Health and Welfare, Administrative Procedures Section, 450 West State Street - 10th Floor, Boise, Idaho 83720-5450, within thirty-five (35) days of the date of this decision.

Please be advised that this operating permit is subject to permit application fees of five hundred dollars ($500.00) in accordance with IDAPA 16.01.01.470. IDAPA 16.01.01.470 became effective on March 7, 1995. Information regarding the permit application fees will be sent to you shortly.

If you have any questions regarding the terms or conditions of the enclosed permit, please contact Brian R. Monson, Chief, Operating Permits Bureau, at (208) 373-0502.

Sincerely,

Orville D. Green
Assistant Administrator
Permits & Enforcement

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Enclosure

cc: G. Spinner, SEIRO
Source File
COF

STATE OF IDAHO
AIR POLLUTION
OPERATING PERMIT

GENERAL INFORMATION

PERMIT NUMBER

029 - 00008

AQCR	CLASS	Primary SIC	Secondary SIC
061	A2	2819	2874

ZONE 11

UTM COORDINATE (km) 452.3, 4724.8

1. **PERMITTEE**
   Soda Springs Phosphate, Inc. (Soda Springs)

2. **PROJECT**
   Tier II Operating Permit

3. **ADDRESS**	**TELEPHONE #**	**COUNTY**
P.O. Box 578	(208) 547-3494	Caribou
4. **CITY**	**STATE**	**ZIP CODE**
Soda Springs	Idaho	83276
5. **PERSON TO CONTACT**	**TITLE**	
Lynn Moore	Manager	

6. **EXACT PLANT LOCATION**
   720 Industrial Plaza, North Side of Soda Springs, Idaho

7. **GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**
   Granulation of Phosphate Ore and Gypsum for Organic Farming Application

8. **GENERAL CONDITIONS**

This permit is issued according to the **Rules for the Control of Air Pollution in Idaho**, Section 16.01.01.400 and pertains only to emissions of air contaminants which are regulated by the State of Idaho and to the sources specifically allowed to be operated by this permit.

THIS PERMIT HAS BEEN GRANTED ON THE BASIS OF DESIGN INFORMATION PRESENTED IN THE APPLICATION AND DEQ'S TECHNICAL ANALYSIS OF THE SUPPLIED INFORMATION. CHANGES IN DESIGN OR EQUIPMENT, THAT RESULT IN ANY CHANGE IN THE NATURE OR AMOUNT OF EMISSIONS, MAY BE A MODIFICATION. MODIFICATIONS ARE SUBJECT TO DEPARTMENT REVIEW IN ACCORDANCE WITH Section 16.01.01.200 OF THE **Rules for the Control of Air Pollution in Idaho.**

Neville D. Green

ASSISTANT ADMINISTRATOR
DIVISION OF ENVIRONMENTAL QUALITY

ISSUED April 12, 1996
Date
EXPIRES April 12, 2001
Date

AIR POLLUTION OPERATING PERMIT

PERMITTEE AND LOCATION

PERMIT NUMBER

Soda Springs Phosphate, Incorporated
Tier II Operating Permit
Soda Springs, Idaho

0 2 9 - 0 0 0 0 8

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

General Plant Description

1. SOURCE DESCRIPTION

1.1 Process Description

Soda Springs Phosphate, Inc., Soda Springs, Idaho, is a phosphate granulation facility, which granulates raw material (powdered phosphate ore or gypsum) by mixing it with lignosulfonate molasses. Raw material is delivered to the facility by dump trucks. Raw material is transferred from stockpiles by a front-end loader to the feed shaker screen that leads to the feeder belt, the feeder bin, the pan feeder, the feed belt, and then to the pug mill. Lignosulfonate powder is delivered by cars where it is pumped to a storage tank. Lignosulfonate is mixed with water in the mix tank to form a binder which is pumped to the pug mill where it is milled with the raw material. The product then leaves to a granulator, a dryer, dryer belt, then to the cooler. Emissions from the dryer and the cooler are controlled by two (2) dry cyclones and a wet cyclone connected in series with three wet scrubbers. After that, the product is transferred to the cooler discharge belt, the cooler extension belt, and then to a set of three (3) screens, the Rotex screen, the hummer screen, and the mini product screen. The oversized product is transferred to the oversize belt which leads to the hammer mill. Products from the screens are transferred to the product storage via the product belt and the mini product belt. The fines are recycled to the feed belt through the fines return belt. Loading of the product is made by a front-end loader that transfers the product to the loadout shaker, the loadout belt, then to trucks or cars. Products from the hammer mill pass through a multiclone that leads to the cooler.

1.2 Process Equipment

	Name	Manufacturer	Size	Speed	Capacity
1.2.1	Feeder Bin				
1.2.2	Pug Mill	ABA	3' x 7'	70 rpm	12 tph
1.2.3	Granulator		54" x 15'	12 rpm	12 tph
1.2.4	Dryer Drum		7' x 40'	12 rpm	12 tph
1.2.5	Burner & Fan	Ransone	5 - 10 psi	2150 rpm	6 MMBtu/h
1.2.6	Cooler Drum		7' x 40'	12 rpm	12 tph
1.2.7	Hammer Mill	Jeffrey	18" x 20"	1600 rpm	3 tph
1.2.8	Feed Shaker Screen	Cedar Rapids	4' x 10'	900 rpm	12 tph
1.2.9	Rotex Screen	S/A, #80	5' x 7'	227 rpm	12 tph
1.2.10	Hummer Screen		4' x 10'	950 rpm	8 tph
1.2.11	Mini Product Screen		2.5' x 3.5'	1200 rpm	3 tph
1.2.12	Load Out Screen	Tyler-3-Deck	5' x 10'	960 rpm	30 tph

1.3 Control Equipment

	Name	Manufacturer	Size	Speed	Capacity
1.3.1	Cyclones (2) (dry)				
1.3.2	Cyclone (wet)				
1.3.3	Scrubber Pump #1	Barkley	4" x 3"	3600 rpm	360 GPM
1.3.4	Scrubber Pump #2	Gallagher	Sump x 3"	1500 rpm	200 GPM
1.3.5	Scrubber Pump #3	Gallagher	Sump x 3"	1500 rpm	200 GPM
1.3.6	High Pressure Pump	Hypro	Diaphragm	350 rpm	17 GPM
1.3.7	Multiclone			1200 rpm	10000 CFM

ISSUED: April 12, 1996
EXPIRES: April 12, 2001

AIR POLLUTION OPERATING PERMIT

PERMITTEE AND LOCATION

PERMIT NUMBER

Soda Springs Phosphate, Incorporated
Tier II Operating Permit
Soda Springs, Idaho

029 - 00008

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

OURCE

crubber Stack

SOURCE DESCRIPTION

1.1 Process Description

Raw material is transferred, by a front-end loader, from the stockpile to the feed shaker screen that leads to the feeder belt, then to the feeder bin, then to the pan feeder which leads to the feed belt, and after that to the pug mill. Lignosulfonate powder is delivered by cars where it is pumped to a storage tank. Lignosulfonate is mixed with water in the mix tank to form a binder which is pumped to the pug mill where it is milled with the raw material. After the pug mill, the product goes to a granulator, then to a dryer, and then to the dryer belt, which leads to the cooler. The dryer is fired by natural gas exclusively. Emissions from the dryer and the cooler are controlled by two (2) dry cyclones, one for each, and a common wet cyclonic scrubber connected in series with a three stage wet scrubber. Emissions are vented through the scrubber stack.

1.2 Control Equipment

	Name	*Manufacturer*	*Size*	*Speed*	*Capacity*
1.3.1	Cyclones (2) (dry)				
1.3.2	Cyclone (wet)				
1.3.3	Scrubber Pump #1	Barkley	4" x 3"	3600 rpm	360 GPM
1.3.4	Scrubber Pump #2	Gallagher	Sump x 3"	1500 rpm	200 GPM
1.3.5	Scrubber Pump #3	Gallagher	Sump x 3"	1500 rpm	200 GPM
1.3.6	High Pressure Pump	Hypro	Diaphragm	350 rpm	17 GPM

EMISSION LIMITS

2.1 Particulate matter (PM), particulate matter with aerodynamic diameter less than or equal to a nominal ten (10) micrometers (PM-10), sulfur dioxide (SO_2), oxides of nitrogen (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) emissions from the scrubber stack shall not exceed the corresponding emissions limits, pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix A of this permit.

2.2 Visible emissions from the scrubber stack shall not exceed twenty percent (20%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period as required by IDAPA 16.01.01.625 (Rules for the Control of Air Pollution in Idaho).

2.3 Visible fugitive emissions from the pug mill and the granulator shall not be observed leaving the property boundary exceeding a period or periods aggregating more than three (3) minutes in any sixty (60) minute period. This visual determination is to be conducted using method 22, as described in 40 CFR part 60, Appendix A.

OPERATING REQUIREMENTS

3.1 Product Throughput

The fertilizer throughput from the facility shall not exceed a maximum of twelve (12) tons per hour (T/hr).

AIR POLLUTION OPERATING PERMIT

PERMITTEE AND LOCATION

PERMIT NUMBER

Soda Springs Phosphate, Incorporated
Tier II Operating Permit
Soda Springs, Idaho

029 - 00008

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Scrubber Stack

3.2 Wet Scrubbers

3.2.1 Pressure drop across the wet scrubber shall be maintained within manufacturer's specifications. Documentation of the manufacturer's specifications shall remain on-site at all times and shall be made available to Department representatives upon request.

3.2.2 Water flow rate to the wet scrubbers shall be greater than or equal to 760 gallons per minute.

3.3 Dryer Temperature

The temperature of the dryer shall not exceed a maximum of 250° Fahrenheit (°F).

3.4 High Pressure Pump

The high pressure pump shall be operated when the visible emissions from the scrubber stack exceed ten percent (10%).

3.5 Fresh Water to Scrubber System

Fresh water shall be added to the recycled water when the visible emissions from the scrubber stack exceed ten percent (10%).

3.6 Control System

The two (2) dry cyclones, the wet cyclonic scrubber, and the three stage wet scrubber shall be connected in series.

3.7 Installation of Monitoring Equipment

The Permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer's specifications, equipment to continuously measure the pressure differential across the air pollution control equipment, the scrubbing media flow rate to the wet scrubber system, and the temperature of the dryer.

4. MONITORING AND RECORDKEEPING REQUIREMENTS

4.1 The following parameters shall be recorded on a daily basis. All data shall be kept on-site in a log for a period of two (2) years and made available to Department representatives upon request.

4.1.1 Pressure drop across the wet scrubber system.

4.1.2 Scrubbing media flow rate to the wet scrubber system.

4.1.3 Amount of fresh water flow rate to the wet scrubber system.

4.1.4 The temperature of the dryer.

4.2 The amount of natural gas used by the dryer's combustion shall be recorded annually.

AIR POLLUTION OPERATING PERMIT

PERMITTEE AND LOCATION

PERMIT NUMBER

Soda Springs Phosphate, Incorporated
Tier II Operating Permit
Soda Springs, Idaho

029 - 00008

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Product Screening, Conveying, and Milling

1. **SOURCE DESCRIPTION**

1.1 Process Description

Product from the cooler is transferred to the cooler discharge belt, the cooler extension belt, and then to a set of three screens, the Rotex screen, the hummer screen and the mini product screen. Oversize product is transferred to the oversize belt which leads to the hammer mill.

2. **EMISSION LIMITS**

2.1 Particulate matter (PM) and particulate matter with aerodynamic diameter less than or equal to a nominal ten (10) micrometers (PM-10) emissions from product screening, conveying, and milling shall not exceed the corresponding emissions limits, pound per hour (lb/hr) and ton per year (T/yr) values listed in Appendix A of this permit.

2.2 Visible emissions from the product screening, conveying, or milling shall not be observed leaving the property boundary exceeding a period or periods aggregating more than three (3) minutes in any sixty (60) minute period. This visual determination is to conducted using method 22, as described in 40 CFR part 60, Appendix A.

3. **OPERATING REQUIREMENTS**

3.1 Emissions generated from the product screening, conveying, or milling shall be reasonably controlled in accordance with IDAPA 16.01.01.650 (Rules for the Control of Air Pollution in Idaho).

Some of the efficient and reasonable controls may include, but shall not be limited to, the following:

3.1.1 Use of water or environmentally safe chemicals;

3.1.2 Application of dust suppressants; and

3.1.3 Use of control equipment.

4. **MONITORING AND RECORDKEEPING REQUIREMENTS**

4.1 The following parameters shall be recorded on a daily basis. All data shall be kept on-site in a log for a period of two (2) years and made available to Department representatives upon request.

4.1.1 Brand name and chemical composition of the dust suppressant used.

4.1.2 Dilution ratio (volume of water: volume of dust suppressant) used.

4.1.3 Application intensity (gal/day) of the dust suppressant solution.

4.1.4 Facility plot plan illustrating the treated areas.

AIR POLLUTION OPERATING PERMIT

PERMITTEE AND LOCATION

PERMIT NUMBER

Soda Springs Phosphate, Incorporated
Tier II Operating Permit
Soda Springs, Idaho

029 - 00008

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Ore Unloading, Ore Piling, Stockpiles, and Ore Feeding

1. SOURCE DESCRIPTION

1.1 Process Description

Raw material (ore) is delivered to the facility by dump trucks. The ore is stored in stockpiles. A front-end loader transfers the raw material from the stockpiles to the feed shaker screen that leads to the feeder belt, then to the feeder bin, then to the pan feeder which leads to the feed belt, and after that to the pug mill.

2. EMISSION LIMITS

2.1 Particulate matter (PM) and particulate matter with aerodynamic diameter less than or equal to a nominal ten (10) micrometers (PM-10) emissions from ore unloading, ore piling, stockpiles, and ore feeding shall not exceed the corresponding emissions limits, pound per hour (lb/hr) and ton per year (T/yr) values listed in Appendix B of this permit.

2.2 Visible fugitive emissions from ore unloading, piling, stockpiles, or feeding shall not be observed leaving the property boundary exceeding a period or periods aggregating more than three (3) minutes in any sixty (60) minute period. This visual determination is to be conducted using method 22, as described in 40 CFR part 60, Appendix A.

3. OPERATING REQUIREMENTS

3.1 Fugitive emissions generated from ore unloading, piling, stockpiles, or feeding shall be reasonably controlled in accordance with IDAPA 16.01.01.650 (Rules for the Control of Air Pollution in Idaho).

Some of the efficient and reasonable controls may include, but shall not be limited to, the following:

3.1.1 Use of water or environmentally safe chemicals;

3.1.2 Application of dust suppressants; and

3.1.3 Use of control equipment.

4. MONITORING AND RECORDKEEPING REQUIREMENTS

4.1 The following parameters shall be recorded on a daily basis. All data shall be kept on-site in a log for a period of two (2) years and made available to Department representatives upon request.

4.1.1 Brand name and chemical composition of the dust suppressant used.

4.1.2 Dilution ratio (volume of water: volume of dust suppressant) used.

4.1.3 Application intensity (gal/day) of the dust suppressant solution.

4.1.4 Facility plot plan illustrating the treated areas.

AIR POLLUTION OPERATING PERMIT

PERMITTEE AND LOCATION

PERMIT NUMBER

Soda Springs Phosphate, Incorporated
Tier II Operating Permit
Soda Springs, Idaho

029 - 00008

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Product Loading

1. **SOURCE DESCRIPTION**

1.1 Process Description

Product loading is made by a front-end loader that transfers the product to the loadout shaker, the loadout belt, then to trucks or railcars.

2. **EMISSION LIMITS**

2.1 Particulate matter (PM) and particulate matter with aerodynamic diameter less than or equal to a nominal ten (10) micrometers (PM-10) emissions from the product loading operation shall not exceed the corresponding emissions limits, pound per hour (lb/hr) and ton per year (T/yr) values listed in Appendix B of this permit.

2.2 Visible fugitive emissions from the product loading operation shall not be observed leaving the property boundary exceeding a period or periods aggregating more than three (3) minutes in any sixty (60) minute period. This visual determination is to conducted using method 22, as described in 40 CFR part 60, Appendix A.

3. **OPERATING REQUIREMENTS**

3.1 Fugitive emissions generated from product loading shall be reasonably controlled in accordance with IDAPA 16.01.01.650 (Rules for the Control of Air Pollution in Idaho).

Some of the efficient and reasonable controls may include, but shall not be limited to, the following:

3.1.1 Use of water or environmentally safe chemicals;

3.1.2 Application of dust suppressants;

3.1.3 Use of control equipment; and

3.1.4 Covering of trucks.

4. **MONITORING AND RECORDKEEPING REQUIREMENTS**

4.1 The following parameters shall be recorded on a daily basis. All data shall be kept on-site in a log for a period of two (2) years and made available to Department representatives upon request.

4.1.1 Brand name and chemical composition of the dust suppressant used.

4.1.2 Dilution ratio (volume of water: volume of dust suppressant) used.

4.1.3 Application intensity (gal/day) of the dust suppressant solution.

4.1.4 Facility plot plan illustrating the treated areas.

Appendix A

Soda Springs Phosphate - Soda Springs

Hourly (lb/hr) and Annual (T/yr) Point Source Emissions Limits[a]

Source	PM		PM-10		SO_2		CO		NO_x		VOC	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Scrubber Stack	1.272	5.571	1.032	4.521	0.004	0.016	0.126	0.552	0.600	2.628	0.032	0.139
Screening, Conveying, Milling	2.386	10.452	0.909	3.982	-----	-----	-----	-----	-----	-----	-----	-----

a. As determined by a pollutant specific U.S. EPA reference method, Department approved alternative, or as determined by the Department's emission estimation methods used in the permit application analysis.

ISSUED: April 12, 1996
EXPIRES: April 12, 2001

Appendix B

Soda Springs Phosphate - Soda Springs

Hourly (lb/hr) and Annual (T/yr) Area Source Emissions Limits[a]

Source	PM		PM-10		SO_2		CO		NO_x		VOC	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Ore Unloading, Piling, Stockpiles, Feeding	-----	1.734	-----	0.712	-----	-----	-----	-----	-----	-----	-----	-----
Product Loading	-----	2.536	-----	0.919	-----	-----	-----	-----	-----	-----	-----	-----

a. As determined by a pollutant specific U.S. EPA reference method, Department approved alternative, or as determined by the Department's emission estimation methods used in the permit application analysis.

ISSUED: April 12, 1996
EXPIRES: April 12, 2001

OPERATING PERMIT GENERAL PROVISIONS

A. All emissions authorized herein shall be consistent with the terms and conditions of this permit. The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the **Rules for the Control of Air Pollution in Idaho**, and the Environmental Protection and Health Act, Idaho Code 39-101 et. seq.

B. The Permittee shall at all times (except as provided in the **Rules for the Control of Air Pollution in Idaho**) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable laws for the control of air pollution.

C. The Permittee shall allow the Director, and/or his authorized representative(s), upon the presentation of credentials:

1) To enter upon the Permittee's premises where an emission source is located, or in which any records are required to be kept under the terms and conditions of this permit; and

2) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and to require stack emission testing (i.e., performance tests) in conformance with state approved or accepted EPA procedures when deemed appropriate by the Director.

D. Except for data determined to be confidential under Section 39-111, **Idaho Code**, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the appropriate regional office of the Division of Environmental Quality.

E. Nothing in this permit is intended to relieve or exempt the Permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.

F. In the event of any change in control or ownership of source(s) from which the authorized emissions emanate, the Permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Director.

G. This permit shall be renewable on the expiration date, provided the Permittee submits any and all information necessary for the Director to determine the amount and type of air pollutants emitted from the equipment for which this permit is granted. Failure to submit such information within sixty (60) days after receipt of the Director's request shall cause the permit to be voided.

H. The Director may require the Permittee to develop a list of Operation and Maintenance Procedures which must be approved by the Department. Such list of procedures shall become a part of this permit by reference, and the Permittee shall adhere to all of the operation and maintenance procedures contained therein.

I. The Permittee shall provide the Department a minimum of thirty (30) days notice prior to the scheduled date of any performance test required pursuant to this permit. Such testing must strictly adhere to the procedures outlined in the Department's **Procedures Manual for Air Pollution Control**, and will not be conducted on weekends or state holidays, unless the Permittee obtains prior Department approval. Testing procedures and specific time limitations may be modified by the Department by prior negotiation if conditions warrant adjustment.

The Permittee shall promptly notify the Department of any change in the testing schedule and shall provide at least five (5) working days notice prior to conducting any rescheduled test, unless the Department approves a shorter advanced notice period. Any records or data generated as a result of such performance tests shall be made available to the Department upon request.

The performance tests will be performed at the maximum production rate unless otherwise is specifically stated elsewhere in this Operating Permit. If this maximum rate is not achieved during testing, the allowable production rate will be limited to the production rate attained during testing.

J. The provisions of this permit are severable; and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.